

# Failure of Construction Projects: Exploring the Impacts on the Society

Olushola Akinshipe<sup>1</sup>, Clinton Aigbavboa<sup>1</sup>,  
Nokulunga Mashwama<sup>1</sup>, and Wellington Didibhuku Thwala<sup>2</sup>

<sup>1</sup>cidb Centre for Excellence, Faculty of Engineering and the Built Environment,  
University of Johannesburg, Johannesburg 2092, South Africa

<sup>2</sup>Department of Civil Engineering, College of Engineering, Science and Technology,  
University of South Africa, South Africa

## ABSTRACT

All projects, regardless of complexity, are usually bounded by a predefined start and end date within which project objectives must be met. On the other hand, some projects may end up being abandoned if the predetermined construction performance parameters cannot be met within the specified timeframe. These project failures can impact both the animate and inanimate elements environments. It is therefore pertinent to explore the societal impacts of construction project failures. Hence, this study examines the effects of project failure on the internal and external project environment. In conducting this research, a systematic literature review was conducted. In addition, primary data was collected through a questionnaire survey of the construction professionals within South Africa. Collected data were analysed by ranking the examined factors using their mean item scores. Findings from the study revealed three classes of impacts: impacts on the client, impact on the Project Team Members, and impact on the economy. Results revealed that client's reputation, economic value of the area and team members' psychosocial attitude towards the project were most affected by project failures. Ultimately, when a project fails, all stakeholders must be effectively involved in the closure process to ensure an absence of or reduced animosity towards the project. Additionally, properly closing failed projects with all stakeholders' involvement guarantees that the project at its current state is put to the best possible use, partially meeting some objectives and will not be a total loss to society's economy.

**Keywords:** Project success, Premature project closure, Project management, Project team, Project failure

## STUDY BACKGROUND

A project is an assembly of different people performing a string of interdependent activities in a bid to accomplish a common goal. Even though every project is supposed to be completed according to its stated purpose, not all of them can achieve their goals and deadlines, resulting in failure (Akinshipe, et al., 2019). The project proponent and sponsor, usually referred to as 'the client', convene different teams of built environment professionals to offer services and perform duties aimed at achieving the desired goal of the project (Buvik and Rolfsen, 2015). When projects fail, the people involved are

affected by this failure. Similarly, stakeholders that are external to the project are also affected by project failure. Lastly, the economy of the environment in which the project is located is also affected by a project failure. It is important to understand the impacts of project failure on society; hence this study examines the effects of project failure on the internal and external project environment.

The study was designed to follow a descriptive nature to explore the effects of project failure on society. This study was conducted in South Africa through a survey of construction professionals. The opinions of the professionals were converted into Mean Item Score (MIS) to show the importance of each rated factor. The collated data were tested to check its reliability with the aid of Cronbach's alpha test. They returned a value of 0.909, indicating that the collected data set is very reliable and fit for this study.

## **IMPACTS OF PROJECT FAILURE**

For a project to be successful, it must meet all of the stated goals and objectives, the client and relevant parties are satisfied with the final product, relevant parties have gained knowledge, and the team can move on to new projects (Gustaffson and Yadav, 2013). Several factors can lead to a project being shut down before it is finished. These factors include a lack of resources, a lack of communication, and a lack of progress (Olubunmi, Olaniyi and Fisayo, 2014). Other factors are a change in the client's attitude and interest; project team members may also become demotivated to complete the remaining tasks. In addition, employees may worry that their jobs are in jeopardy since project end is near, low morale amongst the team, possibly resulting from frequent turnover among the members (Otim, et al., 2012).

Construction is an important part of society, so project failure has ramifications beyond the people involved, i.e. the client and team. Project failure may also hurt societal growth and economic character. Construction projects necessitate large resources because of their complexity (Doloi, 2009). In the event of project failure, resources such as materials, labour, and capital are wasted. Aside from being unpleasing to everyone, incomplete construction projects are attractive to those engaged in illegal activities, which affects the safety of residents (Doraisamy, Akasah and Yunus, 2014).

A neighbourhood's property values can be negatively affected by a project's failure, and the area's aesthetics can suffer as a result. Getting started on a project only to abandon it midway through is an example that comes to mind. This will negatively affect the visual appeal of the neighbourhood (Gorse, Johnston and Pritchard, 2012). As a result, tax revenue to the government and the entire country is affected. Failure of a construction project results in both a reduction in expected returns and a reduction in previously invested capital because nearly every construction project requires significant amounts of labour and capital (Masurkar and Attar, 2014).

A project must have a variety of stakeholders with varying levels of expertise in order to succeed. The ability to work on multiple projects at once is one of the benefits of cross-functional teams. For a project to be successfully

completed, it is necessary to involve various stakeholders with different levels of expertise (Elbeltagi, 2009). One of the benefits of working in cross-functional groups is that you can accomplish more in less time. Teamwork requires a high level of trust because of the interdependence of sub-tasks, which necessitates relying on each other's functional expertise. The failure of a project can destroy any mutual trust among the team members (Buvik and Rolfsen, 2015).

Depreciation in the invested capital of a project that fails can occur over time (Holroyd, 2003). As a result, the team members will be even more perturbed and embarrassed. Because money spent cannot be refunded, it may result in bankruptcy. Other consequences include destruction of properties and businesses; reduction in revenues; loss of jobs; and increased dissatisfied customers (Otim, et al., 2012). Aside from this, unfinished construction projects, primarily buildings, lose value over time because they are not being used. Some other negative effects of construction projects failure include job losses and job insecurity, as well as a decrease in the value of the company's brand name because of the damage done to its reputation (Nistorescu and Ploscaru, 2010).

## **FINDINGS AND DISCUSSION**

All participants in this study are construction industry professionals, with the majority being project managers. Other professionals from the built environment who have previously managed construction projects participated in the study. The majority of participants have between two and ten years of industry experience, with a few having more than ten years. Many participants work in both the public and private sectors, and the engagement sector is evenly split between the two. An even distribution of construction project professionals indicates that this study is credible.

Project failure impacts the client, team members and the economy as well. This research was broken down into three sections to explore the impacts of project failure on the client, team members and the economy. The results are presented in Table 1.

The findings of this study revealed that a dominant impact of construction project failure would be on the client's reputation. The entire trust a client is placed in individuals or organisations committed to delivering project goals on time. Therefore, failure would affect trust between project stakeholders. The client's and sponsors' interest in the project often changes when the project fails and thus influence the attitude towards the project. Regardless of the circumstances surrounding the failure, the client will always be on the losing end because the project's goals are not met.

The study revealed that project failure would affect the public's trust in the project proponents and team. Fast and successful project completion would bring in more business, resulting in more jobs, while failure would deter new business, putting employees at risk. Project failure can also be demoralising to workers' motivation. Workers' attitude towards and motivation to work on new projects can be affected if the last projects fail. It is easy for workers to internalise and personalise project failures.

**Table 1.** Impacts of project failure.

Impacts of project failure	Mean	Std. Deviation	Rank
<b>Impact on client</b>			
Client's reputation	3.68	0.859	1
Trust towards stakeholders	3.66	0.849	2
Client's disinterest	3.24	0.600	3
<b>Impact on team members</b>			
Public trust	3.56	0.848	1
Project team job security	3.54	0.932	2
Project team image and credibility	3.51	0.850	3
Project team functionality	3.50	0.774	4
Project team identity and motivation	3.28	0.594	5
<b>Impact on the economy</b>			
Loss in economic value of the area	3.61	0.899	1
Loss of potential investors	3.60	0.751	2
Waste of government resources	3.57	0.903	3
Increase in criminal activities	3.55	0.863	4
Possible tax rise	3.51	0.820	5
High unemployment rate	3.29	0.728	6
Economic recession	3.15	0.569	7

It is generally accepted that project failure in the construction industry is a waste of resources, government or not. Similarly, jobs are often lost when a project fails, and the unemployment rate increases. Project failure can leave a community or organisation cut off from employment and social opportunities. For this reason, investors looking to build their net worth will naturally shy away from societies with unfinished projects that have been left unattended for an extended period. Unemployment, investor drought and waste of public resources are a recipe for an economic crisis hence project failure can lead to recession.

The complexity of construction projects necessitates the use of large amounts of resources to be completed successfully. In the event of a failure, resources such as raw materials, labour, and capital are squandered. In addition, while unfinished construction projects may be unappealing to the general public, those engaged in illegal activities find them useful to their criminal nature, which compromises the community's safety.

## CONCLUSION

Every project has a start and end date that must be met, regardless of the project's complexity. However, some projects may fail and close because the predefined construction performance parameters cannot be achieved within the defined schedule. These project failures can affect both the animate and the inanimate environment involved. Therefore, a look at the impact of construction project failures on society is critical. Project failure impacts the client, team members and the economy as well. This research question was broken down into three sections to explore the impacts of project failure on the client, team members and the economy. Ultimately, when a project fails

and is being shut down, all stakeholders must be effectively involved in the process to ensure an absence of or reduced animosity among stakeholders towards the project. Additionally, properly closing failed projects with all stakeholders' involvement guarantees that the project at its current state is put to the best possible use, partially meeting some objectives and will not be a total loss to society's economy.

## REFERENCES

- Akinshipe, O. Aigbavboa, C. Madidimalo, M. Thwala, W.D. (2019) Premature Project Closure: The Part Played by Clients. 1st International Conference on Sustainable Infrastructural Development. IOP Conference Series: Materials Science and Engineering 640. doi:10.1088/1757-899X/640/1/012028
- Buvik, M.P. and Rolfsen, M. (2015) Prior ties and trust development in project teams—A case study from the construction industry. *International journal of project management*, 33(7):1484-1494.
- Doloi, H. (2009). Analysis of pre-qualification criteria in contractor selection and their impacts on project success. *Construction Management and Economics*, 27, 1245–1263. <https://doi.org/10.1080/01446190903394541>.
- Doraisamy, S.V. Akasah, Z. Yunus, R. (2014) A review on abandoned construction projects: Causes and effects. <https://doi.org/10.4028/www.scientific.net/AMM.773-774.979>.
- Elbeltagi, E. (2014) *Construction Site Layout Planning Identifying, Sizing and Locating Temporary Facilities on Construction Sites*. LAP LAMBERT Academic Publishing.
- Gorse, C. A. Johnston, D. and Pritchard, M. (2012) *A dictionary of construction, surveying, and civil engineering*. (Oxford University Press)
- Gustafsson, B. Yadav, B. (2013) Closing IT projects: A Swedish public sector perspective.
- Holroyd City Council (2003) *Living Holroyd: A sustainable future. A Local Agenda 21 action plan: Holroyd*. Available at: <http://www.holroyd.nsw.gov.au/> [Accessed: 12 January 2022]
- Masurkar, Y.S. Attar, A.C. (2014) Investigating the causes for failures in construction by taking a case study. *Current trends in technology and science*, 3.
- Nistorescu, T. Ploscaru, C. (2010) Impact of economic and financial crisis in the construction industry. *Management and Marketing Journal*, 8(1), pp. 25–36.
- Olubunmi, O.A. Olaniyi, A.I. Fisayo, A. (2014) Diversity Among Construction Professionals: A Study of Their Perception of Construction Site Management Practices. *Organization, Technology & Management in Construction*, 6(2).
- Otim, G. Alinaitwe, H.M. Tindiwensi, D. Kerali, A.G. (2012) The causes and impact of uncompleted buildings; studies in Kampala city. In 2nd International Conference on Advances in Engineering and Technology.